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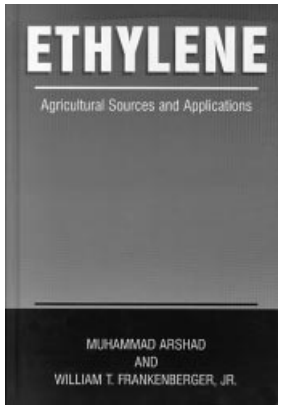

Ethylene: agricultural sources and applications.
Arshad M, Frankenberger WT Jr. 2002.
New York: Kluwer Academic/Plenum Publishers.
£98 (hardback). 342 pp.

Readers of *Annals of Botany* will need no reminding of the important role that ethylene plays as a regulator of plant growth and development. This role has been translated into a wide variety of applications in crop production, where ethylene, applied either as a gas or in the form of ethylene-releasing compounds, is used, for example, to degreen bananas, induce pineapple flowering, eradicate *Striga* infestation and promote fruit abscission. It may be less well known that ethylene is also produced naturally by bacteria and fungi. While these microorganisms show little by way of a response to ethylene, the ethylene they produce can potentially influence plant growth and development, with consequences for plant–microbe interactions in symbiosis, pathogenesis and crop production. This forms the subject of this book, which is a comprehensive account of our current knowledge of ethylene in relation to plant–microbe interactions, and the potential application of this knowledge in agriculture.

The book is divided into eight chapters: an introduction to ethylene as a plant growth regulator; the role it plays in plant physiology; the biochemistry of its production by bacteria and fungi; the factors influencing ethylene production by microbes; ethylene in relation to the soil; ethylene production by plant–microbe symbioses (rhizobia, mycorrhizae, lichens); ethylene in pathogenesis; and, finally, agricultural applications of ethylene. The authors have concentrated on creating a compilation, without imposing much by way of their own interpretation on the work described. The strength of the book is that it brings together a large amount of information on microbial ethylene, and in this respect it is unique. There are a few imperfections in the proof-reading, but overall the quality of the presentation is good, with some useful tables. At the end of each chapter the authors offer their 'Concluding remarks', which summarize the findings described. Often these remarks include a plea for further research. Perhaps this book will supply the impetus for that research.

P. John